Connoisseur

BELT DRIVE TURNTABLE

This Connoisseur turntable is a precision engineered product expressly designed to provide a top grade 'no compromise' performance at a modest cost. Operating at 33⅓ and 45 rpm. It incorporates a unique flexible belt drive system virtually eliminating vibration and transmission noise. A slow speed synchronous motor which has a very low hum field is used thus making the unit suitable for use with even the most sensitive pickups. Performance and reliability being the main criterion complex mechanisms have been avoided. Speed change is accomplished manually and can be effected in seconds. A hinged cover plate at the rear of the platform facilitates this operation. The turntable platter is a non-ferrous aluminium casting precision lathe turned to fine limits. All running shafts are of high quality carbon steel, lapped and polished with diamond dust to a mirror finish. The main turntable bearing is of phosphor bronze and incorporates a hard steel thrust ball reducing friction and wear to a minimum. Featuring slim line construction it requires only 2" (5 cm.) of space below the mounting platform.

Specification

Dual voltage operation	Range 200/240 volts AC or 100/125 volts AC— adjustable by user
Drive motor	Synchronous constant speed 375 rpm. at 50 Hz; 450 rpm. at 60 Hz. Drive pulleys for 50 Hz or 60 Hz operation supplied as specified to order
Power consumption	Less than 5 watts
Operating speeds	33⅓ rpm. and 45 rpm. (Manual Change)
Turntable	10¼" (26 cm.) lathe turned aluminium casting Precision ground spindle Phosphor bronze bearing
Drive	Precision ground round section rubber belt
Weight	Chassis unit 7lb (3.2 Kg.)
Performance	Considerably exceeds broadcast specifications for turntables in respect of hum, rumble, wow and flutter
Rumble	–60 dbs measured with RIAA characteristics when referred to a velocity of 7 cm./sec. at 1 KHz.
Hum Level	–80 dbs
Wow and flutter	Less than 0.1% Minimum mounting space required with average pickup arm— 15" x 13" (38 cm. x 33 cm.) with 2" (5 cm.) below mounting platform
Finish	Black hammer with satin silver and matt black trim Control knob bright finish lathe turned aluminium Plinth — Afromosia wood surround — waxed finish A transparent moulded dust cover to fit the plinth assembly is available as a separate item

Items Illustrated

1. Turntable Platter
2. Hinged Speed Change Cover
3. Platform
4. Control Knob
5. Circlip
6. Motor Pulley
7. Synchronous Drive Motor
8. Switch Panel Assembly
9. Micro-switch
10. Switch Cam & Spindle
11. Switch Cam Spring
12. Switch Panel Cover
13. Isolator Patch
14. Connector Block
15. Centre Bearing Assembly
16. Tension Bands and Tags
17. Ballast Resistor. 3700 ohms plus or minus 5%, 10W. W/W
18. Switch Panel Spacing Pillar
19. Voltage Tap Terminal Post

Items not Illustrated

20. Turntable Rubber Mat
21. Drive Belt
22. Motor Earthing Pigtails & Tags

FIGURE 1

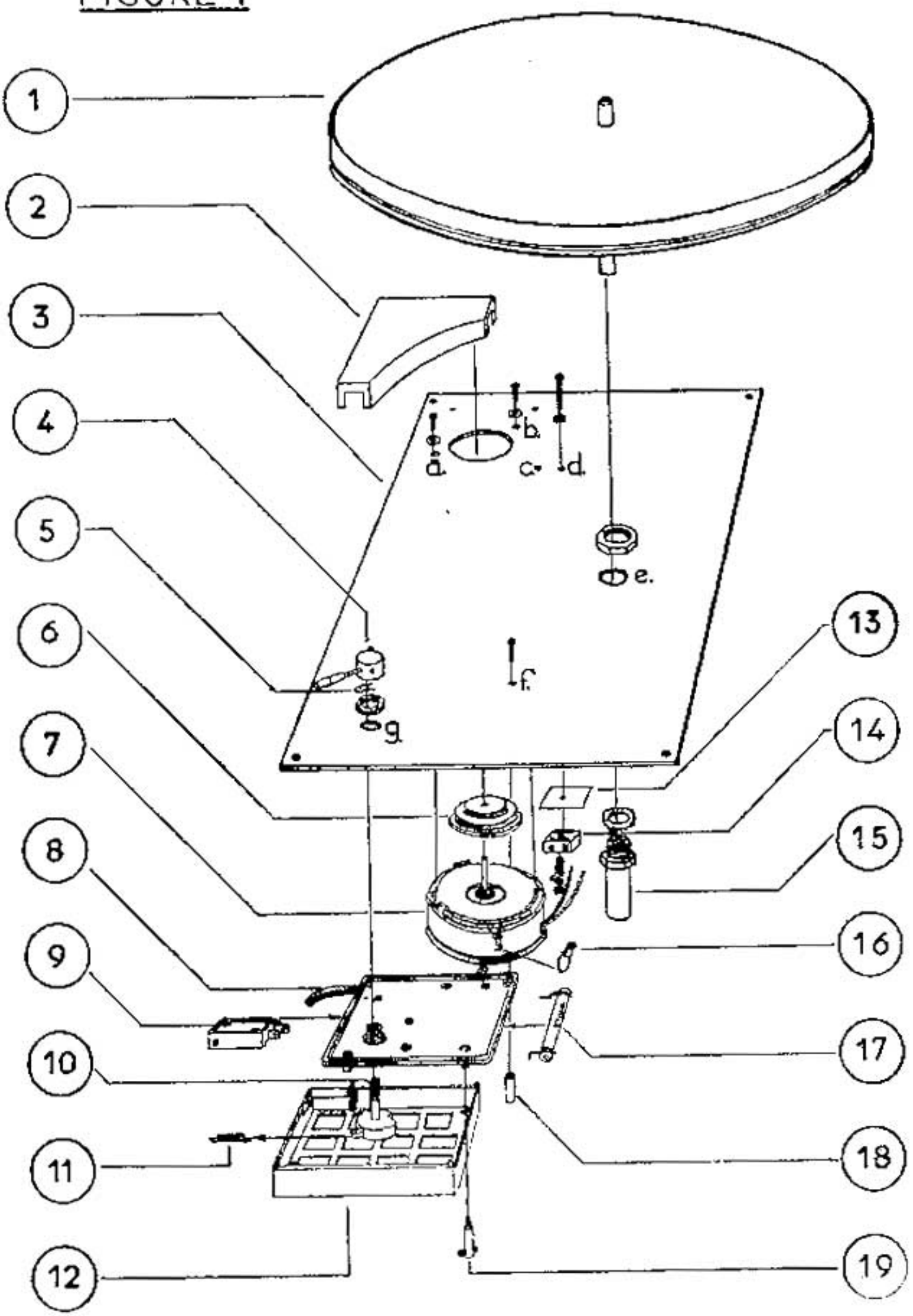


FIGURE 2.

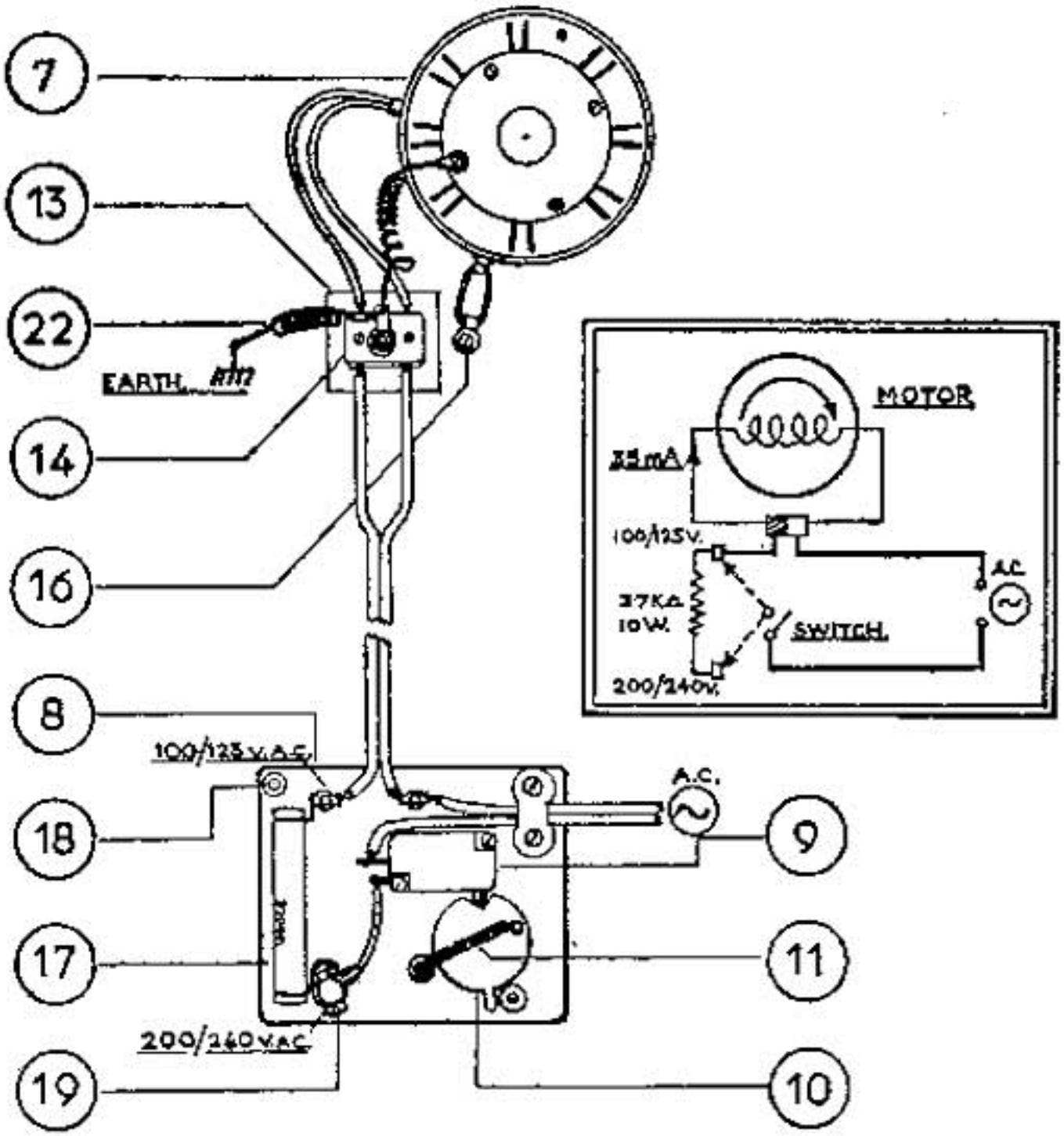
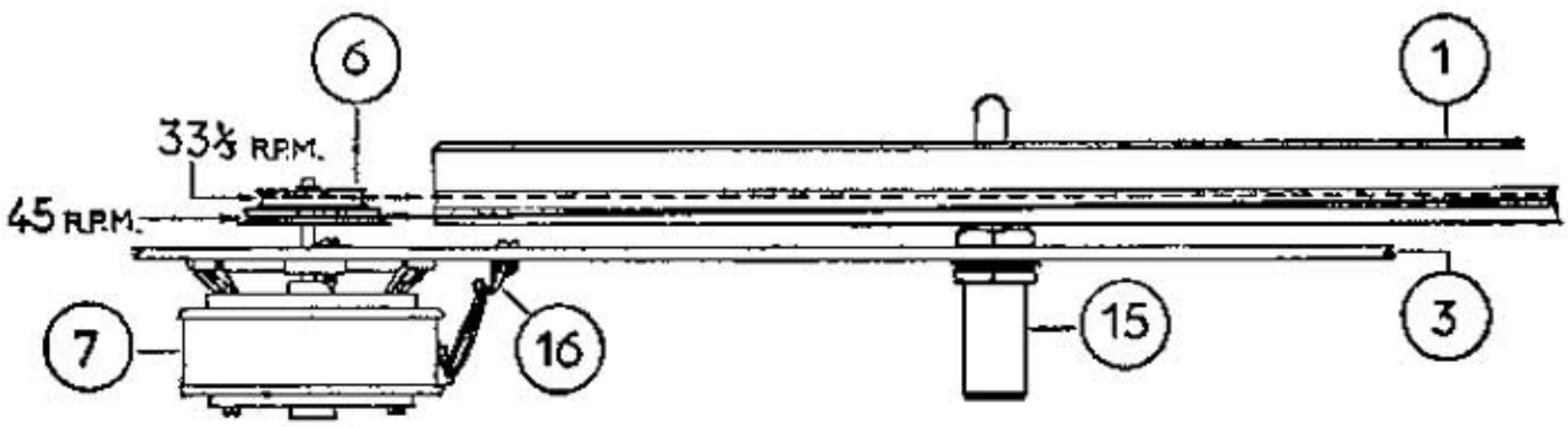


FIGURE 3.



Operating and Maintenance Instructions for the Connoisseur Belt Drive Turntable

Please note— reference to the various diagrams and the recommendations contained within these instructions will enable the best possible performance to be obtained from this unit.

INSTALLATION: *Note*— When installing, and before connecting the power supply, make sure that the motor voltage tapping is correctly set for the supply voltage in use. Access to the tapping point is gained by removing the protective switch panel cover. This is located immediately beneath the control knob on the underside of the metal platform. Please note, for re-assembly purposes, that the two screws retaining the switch panel cover are of different lengths. The correct setting for the fly lead and threaded voltage tap terminal post is indicated in the diagram on the underside of the unit and, also, in figure 2. *DO NOT* make any voltage adjustment while the unit is connected to the power supply. Note—that for operation on any other frequency of supply than that stated a different motor pulley will be required.

When fitting the turntable make sure that the centre spindle and centre spindle bearing are clean and free from foreign matter. One or two drops of lubricating oil may be administered to the centre spindle and bearing at this point.

The drive belt supplied with this unit has now been treated with a special silicone compound which improves the starting and running characteristics of the belt. The belt should be dressed when required with a very thin and even film from the phial of belt dressing supplied with the unit. This should only be necessary after a prolonged period of use.

The drive belt may best be fitted in the following manner:—
Firstly, locate it in one of the grooved sections on the motor drive pulley and maintaining slight tension, engage the belt in the groove on the outer rim of the turntable platter. With tension still maintained feed the belt in and around the periphery of the turntable whilst slowly rotating the turntable by hand until the belt is correctly located. This operation should be carried out with the unit disconnected from the power supply and the control knob in the "on" position. This will ensure the free rotation of the turntable platter and will disengage the rubber stop located in the control knob with the rim of the turntable, thus ensuring the free engagement of the belt without hinderance. The line of the belt should, essentially, be as indicated in figure 3. i.e. with a slight downward bias on 45 rpm. and a level alignment on 33⅓ rpm.

Finally, Check that the cover hinges freely and does not foul the drive belt in any position.

INSTALLATION — CHASSIS UNIT ONLY: For satisfactory reproduction a wood base or mounting board of at least ¼" (9mm.) in thickness should be employed. Use the template supplied and, following the measurements exactly, fix the unit firmly to the mounting board. The drive motor and its associate wiring should not be allowed to contact the mounting board at any point if freedom from vibration is to be maintained.

EARTHING: The turntable unit should be correctly earthed both in the interests of safety as applied to any electrical apparatus and also for the minimum of induced hum in the final reproduction. An earth point and lead is provided for this purpose. This is attached to the underside of the metal motor platform. This earth point or lead should be firmly attached to the earth point provided on the pickup arm and then extended from there to the earth point on the amplifier. Alternatively, the earthing point on the turntable may be connected directly to the amplifier. Only the amplifier itself should be connected to a suitable earth, either the earth pin on a 3-pin mains supply plug or, alternatively, some other good external earth connection is suitable. Either one or other of the above methods of earthing the turntable should be employed In no

circumstances should both methods be used at the same time if freedom from hum is to be obtained.

OPERATION: *To start,* move the control lever sharply with a quick and positive motion to the "on" position. The combined start and brake stop— located on the control knob is designed to contact the rim of the turntable giving an initial movement in the direction of rotation. The spring biased toggle action of the control knob will assist in this function. This will allow the motor and belt to take up the drive of the relatively heavy mass of the turntable smoothly and without difficulty.

To stop: moving the control lever to the "off" position will switch off the supply voltage to the motor and also engage the brake stop.

To change speed: lift back the hinged speed change cover and transfer the belt to the required grooved section of the motor drive pulley.
Please note: the LARGER diameter pulley section provides a speed of 45 r
the smaller diameter pulley section provides a speed of 33⅓

MAINTENANCE: The only maintenance normally required is occasional lubrication with the oil supplied. A small drop of oil should be administered to the turntable spindle and, also, one or two drops to the oiling pad for the drive motor top bearing. This oiling pad is located directly beneath the motor drive pulley and consists of a felt pad through which the motor spindle projects. This pad will retain oil for considerable periods. DO NOT allow oil to come in contact with the rubber drive belt, motor pulley, etc., as this may damage the drive belt causing the rubber to swell.

If starting at any time becomes difficult the drive belt can, with advantage, be coated lightly with the belt dressing compound provided. If for any reason, the drive pulley requires adjustment or replacement, the drive motor must be held firmly from beneath the mounting platform to obviate any possibility of damage to the flexible suspension mounts or motor bottom bearing. The drive pulley is a tight push fit on the motor shaft; it may be removed by a strong and even upward force administered to the central moulded boss. When removing or replacing, take careful note of the correct height setting as indicated in figure 3. *ALWAYS* disconnect the power supply before making any adjustments.

Any correspondence with regard to this unit should quote the serial number, model and, if possible, the date of purchase.

Component parts or spares required should be ordered by consulting exploded view of figure 1, quoting part number and description.

The manufacturers reserve the right to alter design and specification at any time without prior notice.

Sole Manufacturers

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Printed Letterpress In England

The Connoisseur BD2 Integrated Transcription Unit

The BD2 has essentially the same performance and specification as the BD1 unit described and illustrated in the accompanying instruction booklet. The main differences are that the BD2 has a larger platform and integral with this is the lift and lower mechanism for the pickup arm. The arm itself is identical with our standard SAU2 arm except for the lift which has been transferred from the pickup stem to the platform as stated. The third and perhaps most significant difference is that the BD2 is designed for spring anti vibration mounting whereas the BD1 is intended to be mounted solidly on its own wood mounting board.

INSTALLATION

When received the pickup arm will have been set to a height normally pre determined by the Connoisseur type SCU1 stereo cartridge. If other makes of cartridge are to be used it may be necessary to adjust the height of the pickup accordingly. To ensure the correct functioning of the lowering device it may also be necessary to adjust the position of the lift quadrant to ensure sufficient clearance between the quadrant and arm when in the playing position. The lift quadrant is located on the top of the motor platform and is adjacent to the pickup stem and base. It is secured in position on top of the lift operating rod by a slot headed grub screw.

EARTHING

The BD2 unit, when received, will have been wired for correct earthing. The only earth required should be that attached to the 5 pin socket on the pickup leads supplied with the unit. This earth consists of a separate black flexible wire and should be attached to the reproducing amplifier chassis or earth point. No other earth should be required, the amplifier itself being the only unit earthed directly to the third earth pin on the power supply plug.

INSTALLATION—CHASSIS UNIT ONLY

The instructions for installation of the BD2 are essentially as outlined in the accompanying instruction booklet with the exception of the cut out required, this being as the template supplied with the unit. The unit is designed for 3 point spring mounting, the three ¾" (19mm) diameter holes required should be positioned exactly as indicated. The actual assembly of the spring mountings is as illustrated on the mounting template. When assembling the springs the procedure should be as follows:—

Position a conical mounting spring in each of the three ¾" (19mm) diameter holes in the mounting board. On each of the threaded portions of the black plastic levelling studs place a small washer. Each of the studs should be inserted in turn in to the springs as illustrated on the template. The larger retaining washer should then be positioned on the threaded portion of the stud from below the mounting board. To complete the spring assembly the 2BA retaining nut should then be screwed on the levelling stud and locked up tight enough against the large retaining washer to ensure that the spring assembly as a whole can be rotated without any of the component members being able to turn individually. Finally the BD2 unit should be positioned so that each spring assembly in turn can be screwed up and onto the projecting threaded studs on the underside of the BD2 platform. The entire unit with turntable platter in position may then be levelled by adjusting the height of the spring assemblies accordingly.

Instructions for Fitting Improved Suspension Mount to BD1 & BD2 Motors

1. Remove motor from platform.

2. Remove pulley.

3. Remove old suspension bands.

4. Remove and discard motor mounting plate (Fig. 1)

5. Break out bars in motor top bearing plate (Fig. 2). (Use pointed pliers to avoid bar dropping inside motor).

6. Fit rubber suspension plate (Fig. 3) over ½in. centre boss of motor.

7. Fit retaining nylon clip (Fig. 4) into 3 holes in motor top bearing plate.

8. Stretch 3 arms of rubber suspension plate over T-pieces on new motor mounting plate. (N.B. recessed side of plate to face motor).

9. Re-fit motor.

10. Fit new tension band.

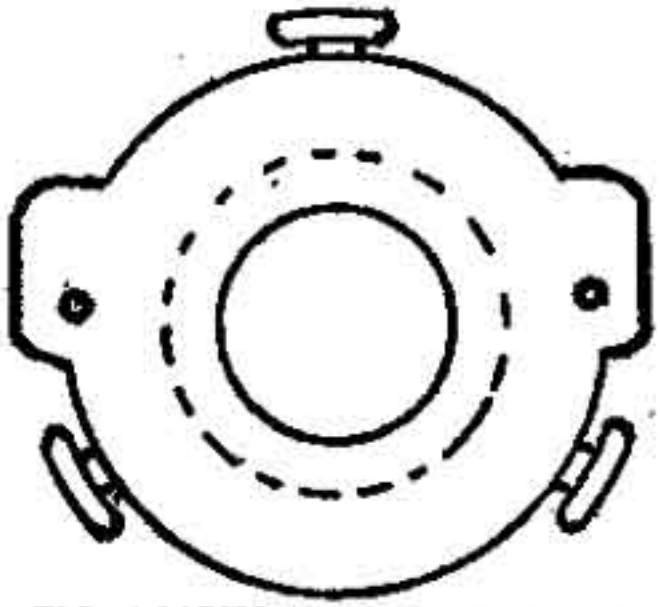
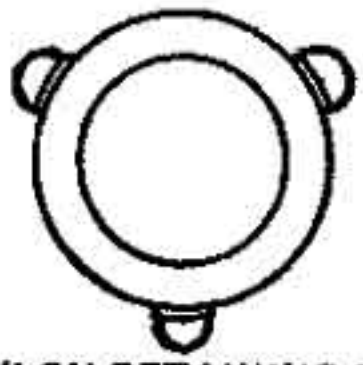


FIG. 1 MOTOR MOUNTING PLATE

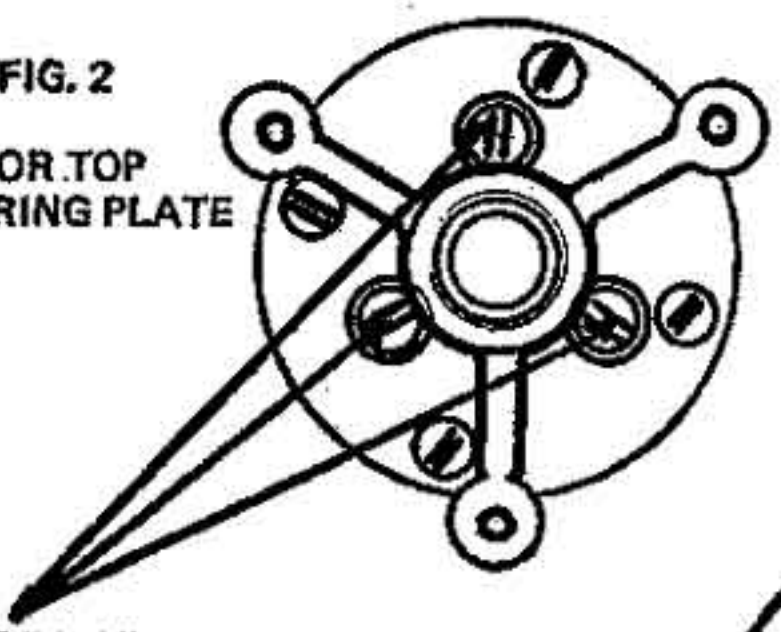
FIG. 4



NYLON RETAINING CLIP

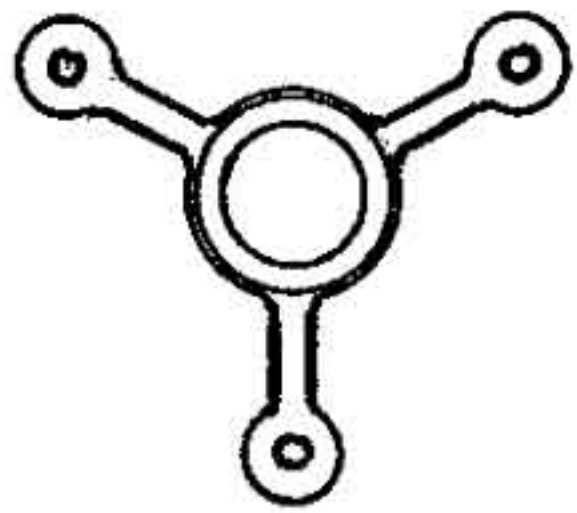
FIG. 2

MOTOR TOP BEARING PLATE



BARS TO BE REMOVED

FIG. 3
RUBBER SUSPENSION



EXPLODED VIEW OF ASSEMBLY